



**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2021-0106; Project Identifier AD-2020-00708-R; Amendment 39-21735; AD 2021-19-17]**

**RIN 2120-AA64**

**Airworthiness Directives; Sikorsky Aircraft Corporation Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Sikorsky Aircraft Corporation (Sikorsky) Model S-92A helicopters. This AD was prompted by an incident of a side facing utility seat detaching from wall attachment points. This AD requires modifying certain side facing utility seats and observer seats, and prohibits installing those seats unless the modification has been accomplished. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For Martin-Baker and Sikorsky service information identified in this final rule, contact your local Sikorsky Field Representative or Sikorsky's Service Engineering Group at Sikorsky Aircraft Corporation, Mailstop K100, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-946-4337 (1-800-Winged-S); email [wcs\\_cust\\_service\\_eng.gr-sik@lmco.com](mailto:wcs_cust_service_eng.gr-sik@lmco.com). Operators may also log on to the Sikorsky 360 website at <https://www.sikorsky360.com>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call

(817) 222-5110. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0106.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0106; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Dorie Resnik, Aerospace Engineer, Aviation Safety Section, Boston ACO Branch, FAA, 1200 District Ave., Burlington, MA 01803; phone: (781) 238-7693; email: [dorie.resnik@faa.gov](mailto:dorie.resnik@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Sikorsky Model S-92A helicopters with certain Martin-Baker side facing utility or observer seats installed. The NPRM published in the *Federal Register* on March 4, 2021 (86 FR 12550). The NPRM was prompted by an incident of a side facing utility seat detaching from wall attachment points during dynamic testing. The root cause has been identified as a change in the finishing process of the main back tube. Due to design similarity, certain observer seats are also subject to this unsafe condition. In the NPRM, the FAA proposed to require replacing the main back tube assembly in affected side facing utility and observer seats. The NPRM also proposed to prohibit installing those seats unless the main back tube assembly has been replaced. The FAA is issuing this AD to address the unsafe condition on these products.

#### **Discussion of Final Airworthiness Directive**

## **Comments**

The FAA received comments from two commenters. One commenter supported the NPRM without change. Sikorsky also commented on the NPRM. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Request to Change the AD to an Appliance AD against Martin-Baker Seats**

Sikorsky requested changes throughout the proposed AD to change it from an aircraft AD against Sikorsky to an appliance AD against Martin-Baker. Sikorsky stated that the defect is in Martin-Baker technical standard order (TSO) authorization seats and is not a defect of the Sikorsky Model S-92A helicopter, and that the seats sold to Sikorsky are manufactured under TSO-C39b (side facing utility seat) and TSO-C127a (observer seat) qualifications and are supplied with a TSO-C39b or TSO-C127a tag, as applicable. Sikorsky stated that the background of the AD should provide the result of the FAA's review with Martin-Baker Aircraft. According to Sikorsky, Martin-Baker indicated that seats for Sikorsky platforms are tracked separately from other platforms; and accordingly, the AD should be issued against affected Martin-Baker seats to ensure all affected parts (Martin-Baker seat tube part number (P/N) MBCS4109 and/or seat P/Ns MBCS12410AA001, MBCS12200, MBCS7301-2, and other P/Ns as identified by Martin-Baker) are corrected. Sikorsky further stated that during the review in support of the issuance of Sikorsky S-92A Helicopter Alert Service Bulletin ASB 92-25-026, Basic Issue, dated March 5, 2020 (ASB 92-25-026), Martin Baker Aircraft Company indicated that over 1,000 fielded seats are affected by the defect and that Sikorsky purchased 371 of the affected seats for the Model S-92A helicopter. Sikorsky stated that it issued ASB 92-25-026 to ensure its operators implemented the repairs specified in Martin-Baker Special Information Leaflet (SIL) No. 831, dated July 10, 2019 (SIL 831), and SIL No. 833, dated July 11, 2019 (SIL 833). Additionally, Sikorsky explained that ASB 92-25-026 identifies Model S-92A helicopters with certain serial numbers (S/Ns) in its Effectivity paragraph because that was the known span at the time of its issuance; however, the AD should be against the seats because the seats can be moved from one serial-numbered aircraft to another serial-numbered aircraft and because the required change is to the articles.

The FAA disagrees. The FAA has confirmed that the manufacturing defect of Martin-Baker side facing utility seats supplier P/N MBCS12410AA001 did not cause non-compliance with TSO-C39b Aircraft Seats and Berths. The unsafe condition does not exist in those seats, it resulted from the installation of those seats in Sikorsky Model S-92A helicopters. In this situation, it became Sikorsky's responsibility to show compliance with 14 CFR 29.562 at Amendment 29-41 for the installed seat because this is part of the certification basis of the aircraft as defined in FAA Type Certificate No. R00024BO. Even though the seat is TSO-C39b qualified, the seat installation is required to meet the dynamic landing conditions defined in 14 CFR 29.562. Because the manufacturing defect caused non-compliance with the aircraft certification basis of 14 CFR 29.562, the AD is applicable to the aircraft. Conversely, the FAA has confirmed that the manufacturing defect of Martin-Baker observer seats supplier P/Ns MBCS12200 and MBCS7301-2 did cause non-compliance with TSO-C127a, Rotorcraft, Transport Airplane, and Normal and Utility Airplane Seating Systems standards, which was the applicable TSO when the seats were manufactured. In this situation, the unsafe condition exists in those European State of Design seats, and not from the installation of those seats in Sikorsky Model S-92A helicopters. The FAA recognizes that in this situation, the FAA customarily issues an AD against the appliance instead of the aircraft. However, Sikorsky Model S-92A helicopters are the only model on the U.S. registry with those seats installed and the FAA has therefore determined that it is unnecessary to change this AD at this time and have a separate appliance AD against the observer seats. If additional information is later identified, the FAA might consider further rulemaking.

#### **Request to Change the Consequences of Not Addressing the Unsafe Condition**

Sikorsky requested revising the consequences of not addressing the unsafe condition in paragraph (e) of this AD to not limit excessive lumbar loads during a crash event to just the observer seats because any seat with an improperly manufactured main back tube could induce excessive lumbar loads during a crash event.

The FAA agrees for the reasons provided. The FAA has revised paragraph (e) of this AD accordingly.

#### **Request for Credit for Compliance with Service Information**

In a request to change requirements proposed in the NPRM, Sikorsky commented that compliance with ASB 92-25-026 was required by March 5, 2021, and that all affected seats (installed on Sikorsky Model S-92A helicopters) that have been updated with its procedures should be identified as complying with this AD with no further action required.

The FAA disagrees. This AD requires replacing each main back tube assembly by following procedures in ASB 92-25-026. If this action has been accomplished prior to the effective date of this AD, then compliance for this action has been accomplished by paragraph (f) of this AD. However, this AD also prohibits installing an affected seat on Sikorsky Model S-92A helicopters unless the main back tube assembly has been replaced following those procedures in ASB 92-25-026. Additionally, not all operators are required to accomplish a manufacturer's maintenance procedures. In order for procedures in service information, including procedures in alert service bulletins, to become mandatory when the FAA has determined the procedures are necessary to correct an identified unsafe condition, the FAA must issue an AD.

#### **Request to Require Destruction and Discarding of Parts Instead of Removal from Service**

Sikorsky requested changing the requirement to remove certain previously-installed parts from service to destroying or discarding those parts instead because Sikorsky does not endorse removal from service.

The FAA disagrees. The FAA appreciates that the removed main back tube assemblies, split pins, and tie down straps must not be reinstalled and that those parts may be destroyed or discarded; however, the FAA cannot mandate or enforce destruction or disposal of parts to address an unsafe condition. For the purposes of an AD, the FAA requires removal from service instead to prevent reinstallation.

#### **Conclusion**

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for a minor change in paragraph (e) of this AD to clarify that the FAA is issuing this AD to detect

and address a main back tube that does not meet design specifications, a minor change in Note 3 to paragraph (c) to clarify that the marking of, “SIL833 incorporated” could be located adjacent to identification labels on the underside of the sitting platform assembly P/N MBCS12215, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

#### **Related Service Information under 1 CFR Part 51**

The FAA reviewed ASB 92-25-026, with attachments Martin-Baker SIL 831 and Martin-Baker SIL 833. ASB 92-25-026 specifies procedures for preparing the helicopter for replacing the main back tube assembly by following SIL 831 or SIL 833, as applicable to your seat. ASB 92-25-026 specifies removing existing placards, complying with the applicable SIL, reinstalling the removed placards, inspecting for foreign object debris (FOD), and cleaning. Martin-Baker SIL 831 for side facing utility seat supplier P/N MBCS12410AA001, and Martin-Baker SIL 833 for observer seat supplier P/N MBCS12200 and MBCS7301-2, specify procedures for disassembling the seat, inspecting components, replacing the main back tube assembly (tube assembly, back main), and reassembling, testing, and marking the seat. SIL 831 and SIL 833 are attached to ASB 92-25-026.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

#### **Differences Between This AD and the Service Information**

ASB 92-25-026 specifies a compliance time of no later than March 5, 2021; whereas this AD specifies a compliance time of within 125 hours time-in-service (TIS) or six months after the effective date of this AD, whichever occurs first. ASB 92-25-026 specifies inspecting for FOD and cleaning; whereas this AD does not. SIL 831 and SIL 833 specify destroying and disposing discrepant main back tube assemblies and discarding removed split pins and tie down straps; whereas this AD requires removing those parts from service instead. The service information specifies recording compliance;

whereas this AD does not.

### **Costs of Compliance**

The FAA estimates that this AD affects 9 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Replacing a main back tube assembly takes about 2 work-hours and parts cost about \$11,217, for an estimated cost of about \$11,387 per seat. Each helicopter could have up to 19 affected seats, which takes up to about 38 work-hours and parts cost up to about \$213,123, for an estimated cost of up to about \$216,353 per helicopter and \$1,947,177 for the U.S. fleet.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2021-19-17 Sikorsky Aircraft Corporation:** Amendment 39-21735; Docket No. FAA-2021-0106; Project Identifier AD-2020-00708-R.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Sikorsky Aircraft Corporation Model S-92A helicopters, certificated in any category, with the following installed:

(1) A Martin-Baker side facing utility seat supplier part number (P/N) MBCS12410AA001 with a serial number (S/N) identified in Table 2 of Martin-Baker Special Information Leaflet (SIL) No. 831, dated July 10, 2019 (SIL 831), that is not marked with “SIL831 incorporated;” or



(2) A Martin-Baker observer seat supplier P/N MBCS12200 or MBCS7301-2 with an S/N identified in Table 2 of Martin-Baker SIL No. 833, dated July 11, 2019 (SIL 833), that is not marked with “SIL833 incorporated.”

Note 1 to paragraph (c): SIL 831 and SIL 833 are attached to Sikorsky S-92A Helicopter Alert Service Bulletin ASB 92-25-026, Basic Issue, dated March 5, 2020 (ASB 92-25-026).

Note 2 to paragraph (c): Section 3., the Accomplishment Instructions, Tables 1 and 2 of ASB 92-25-026, specify cross references of Martin-Baker supplier P/Ns with Sikorsky P/Ns and kit P/Ns.

Note 3 to paragraph (c): The marking “SIL831 incorporated” or “SIL833 incorporated,” as applicable, could be located adjacent to identification labels on the underside of the sitting platform assembly P/N MBCS4111 or MBCS12215, respectively.

**(d) Subject**

Joint Aircraft System Component (JASC) Code: 2500, Cabin Equipment/Furnishings; and 2520, Passenger Compartment Equipment.

**(e) Unsafe Condition**

This AD was prompted by an incident of a side facing utility seat detaching from wall attachment points during dynamic testing. The FAA is issuing this AD to detect and address a main back tube, a component of the main back tube assembly, which does not meet design specifications. The unsafe condition, if not addressed, could result in increased surface friction in the direction of the seat attenuation, failure of proper utility seat attenuation during a crash event, excessive lumbar loads during a crash event, and subsequent excessive occupant injury.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

(1) Within 125 hours time-in-service or six months after the effective date of this AD, whichever occurs first, replace each main back tube assembly by following Section 3., Accomplishment Instructions, paragraphs C. through E., of ASB 92-25-026; except where the service information referenced in ASB 92-25-026 specifies destroying and

disposing of parts or discarding parts, this AD requires removing those parts from service instead.

Note 4 to paragraph (g)(1): SIL 831 and SIL 833, referred to in ASB 92-25-026, refer to main back tube assembly as tube assembly, back main.

(2) As of the effective date of this AD, do not install a Martin-Baker side facing utility seat identified in paragraph (c)(1) of this AD or a Martin-Baker observer seat identified in paragraph (c)(2) of this AD unless the actions in paragraph (g)(1) of this AD have been accomplished.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Boston ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(i) Related Information**

For more information about this AD, contact Dorie Resnik, Aerospace Engineer, Aviation Safety Section, Boston ACO Branch, FAA, 1200 District Ave., Burlington, MA 01803; phone: (781) 238-7693; email: [dorie.resnik@faa.gov](mailto:dorie.resnik@faa.gov).

**(j) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Sikorsky S-92A Helicopter Alert Service Bulletin ASB 92-25-026, Basic Issue, dated March 5, 2020, with attachments:

(A) Martin-Baker Special Information Leaflet (SIL) No. 831, dated July 10, 2019;  
and

(B) Martin-Baker SIL No. 833, dated July 11, 2019.

(ii) [Reserved]

(3) As the design approval holder for the product identified in paragraph (c) of this AD, contact Sikorsky Aircraft Corporation for Martin-Baker service information, as well as Sikorsky S-92A helicopter service information identified in this AD, by contacting your local Sikorsky Field Representative or Sikorsky's Service Engineering Group at Sikorsky Aircraft Corporation, Mailstop K100, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-946-4337 (1-800-Winged-S); email [wcs\\_cust\\_service\\_eng.gr-sik@lmco.com](mailto:wcs_cust_service_eng.gr-sik@lmco.com). Operators may also log on to the Sikorsky 360 website at <https://www.sikorsky360.com>.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on September 8, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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